

The Claims

What is claimed is:

- 5 1. An intervertebral implant comprising a plug of allogenic bone conforming in size and shape with a portion of the end plates of adjacent vertebrae, wherein the top and bottom surfaces of the implant include a plurality of teeth provided in at least a two dimensional array with the teeth being spaced apart from one another for interlocking with the adjacent vertebrae, and wherein the teeth have a pyramidal shape profile defined by four
10 sides forming an acute angle with respect to the respective top and bottom surfaces of the implant.
2. The implant of claim 1 wherein the implant has an interior space for receiving osteoconductive material to promote the formation of new bone.
15
3. The implant of claim 2 wherein the osteoconductive material comprises bone chips.
4. The implant of claim 1 wherein the angle formed from the tip of the teeth to
20 a base where the sides meet with the respective top and bottom surfaces is approximately 60 degrees.
5. The implant of claim 1 wherein the implant has a wedge-shaped profile to help restore disc height and spine curvature.
25
6. The implant of claim 1 wherein the implant is formed of more than one piece of allogenic bone.
7. The implant of claim 1 wherein the top and bottom surfaces are curved
30 surfaces.
8. The implant of claim 1 wherein the teeth are integral with the top and bottom surfaces.

35

9. The implant of claim 1 wherein the teeth on the top and bottom surfaces are interrupted to form a channel to receive an insertion instrument for placing the implant.

10. A method for restoring disc height between adjacent vertebrae having facing
5 endplates, the method comprising:

removing at least a portion of a disc located between the adjacent vertebrae;
distracting an inner space between the facing endplates; and
inserting the implant of claim 1 into the distracted inner space.

10 11. The method of claim 10 further comprising measuring a distance between
the adjacent vertebrae with a preoperative lateral radiograph to determine an implant height.

12. The method of claim 10 wherein a distractor is used to distract the inner
15 space.

13. The method of claim 12 further comprising inserting a trial spacer implant to
determine an implant height.

14. The method of claim 10 wherein the implant further includes an interior
20 space and the method further comprises placing osteoconductive material into the interior
space of the implant.

15. An implant for restoring disc height between adjacent vertebrae having
facing endplates comprising an annular plug of allogenic bone surrounding an interior
25 space, the plug having top and bottom surfaces configured and adapted in use to face the
endplates of adjacent vertebrae, wherein the top and bottom surfaces include a plurality of
teeth provided in at least a two dimensional array, and wherein the teeth have a pyramidal
shape defined by four sides forming an acute angle with respect to the respective top and
bottom surfaces of the implant.

30 16. The implant of claim 15 wherein the angle formed from the tip of the teeth to
a base where the sides meet with the respective top and bottom surfaces is approximately 60
degrees.

35

12

17. The implant of claim 16 wherein the implant has a wedge-shaped profile to help restore disc height and spine curvature.

18. The implant of claim 17 wherein the top and bottom surfaces are curved
5 surfaces.

19. The implant of claim 16 wherein the teeth are integral with the top and bottom surfaces.

10 20. The implant of claim 15 wherein the implant is formed of more than one piece of allogenic bone.

15

20

25

30

35